MIAMI-DADE COUNTY
PRODUCT CONTROL SECTION
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DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER)
BOARD AND CODE ADMINISTRATION DIVISION

NOTICE OF ACCEPTANCE (NOA)

CertainTeed Corporation
1400 Union Meeting Road, P.O. Box 1100
Blue Bell, PA 19422-0761

SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER - Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the Florida Building Code including the High Velocity Hurricane Zone of the Florida Building Code.

DESCRIPTION: CertainTeed Modified Bitumen Roof System over Recover Decks.

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, city, state and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

INSPECTION: A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA renews and revises NOA #13-0204.06 and consists of pages 1 through 44.
The submitted documentation was reviewed by Alex Tigera.

ROOFING SYSTEM APPROVAL

Category:	Roofing
Sub-Category:	Modified Bitumen
Material:	APP/SBS
Deck Type:	Recover
Maximum Design Pressure:	**See Specific Deck Assemblies**

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

TABLE 1

Product	Dimensions	Test Specification	Product Description
All Weather/Empire Base Sheet	36" x 65'10"; Roll weight: 86 lbs. (2 squares)	ASTM D 4601 Type II UL Type 15	Asphalt coated, fiberglass reinforced base sheet
Flex-I-Glas™ Base Sheet	36" x 98'9"; Roll weight: 90 lbs. (3 squares)	ASTM D 4601, Type II UL Type G2	Modified Bitumen coated fiberglass base sheet.
Flex-I-Glas™ FR Base Sheet	39 3/8" x 50'; Roll weight: 90 lbs. (1.5 squares)	ASTM D 6163, Grade S, Type I	Modified Bitumen coated fiberglass base sheet.
Flintglas® Ply Sheet Type IV or VI	36" x 164'7"; Roll weight: 40/55 lbs. (5 squares)	ASTM D 2178 Type IV or VI UL Type G1	Fiberglass, asphalt impregnated ply sheet.
Flintlastic STA	39 3/8" x 33'; Roll weight: 90 lbs. (1 square)	ASTM D 6222, Grade S, Type II	Smooth surfaced APP Modified Bitumen membrane with non-woven polyester mat reinforcement for torch application.
Flintlastic GTA, GTA-FR	39 3/8" x 33' 3"; Roll weight: 105 lbs. (1 square)	ASTM D 6222, Grade G, Type II	Granule surfaced APP Modified Bitumen membrane with non-woven polyester mat reinforcement for torch application.
Flintlastic GMS, GMS Premium	39 3/8" x 34' 2"; Roll weight: 100/105 lbs. (1 square)	ASTM D 6164, Grade G, Type II	Granule surfaced SBS Modified Bitumen membrane with non-woven polyester mat reinforcement for mop application.
Flintlastic FR, FR-P Premium	39 3/8" x 34' 2"; Roll weight: 105 lbs. (1 square)	ASTM D 6164, Grade G, Type I	Fire resistant, granule surfaced SBS Modified Bitumen Membrane with non-woven polyester mat reinforcement for mop application.
Flintlastic FR Cap Sheet	39 3/8" x 34' 2"; Roll weight: 90 lbs. (1 square)	ASTM D 6163, Grade G, Type I	Fire resistant, granule surfaced SBS Modified Bitumen membrane with fiberglass mat reinforcement for mop applications.

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

TABLE 1

Product	Dimensions	Test Specification	Product Description
Flintlastic FR Cap T	39-3/8" x 34'2"; Roll weight: 81lbs. (1 square)	ASTM D6163	Granule surfaced SBS Modified Bitumen membrane with fiberglass mat reinforcement for torch application.
Flintlastic FR Base T	39-3/8" x 33'; Roll Weight: 81lbs. (1.0 squares)	ASTM D6163	Modified Bitumen, coated fiberglass base sheet for torch application.
Flintlastic FR Cap CoolStar	39 $^{3}/_{8}$" x 34' 2"; Roll weight: 90 lbs. (1 square)	ASTM D 6163	Fire resistant, granule surfaced SBS Modified Bitumen membrane with fiberglass mat reinforcement for mop applications. Covered with reflective CoolStar Coating.
Flintlastic FR Cap T CoolStar	39 $^{3}/_{8}$" x 34' 2"; Roll weight: 90 lbs. (1 square)	ASTM D 6163	Fire resistant, granule surfaced SBS Modified Bitumen membrane with fiberglass mat reinforcement for mop applications. Covered with reflective CoolStar Coating.
Flintlastic GTA, GTA-FR CoolStar	39 $^{3}/_{8}$" x 33' 3"; Roll weight: 105 lbs. (1 square)	ASTM D 6222	Granule surfaced APP Modified Bitumen membrane with non-woven polyester mat reinforcement for torch application. Covered with reflective CoolStar Coating.
Flintlastic GMS/GMS Premium CoolStar	39 $^{3}/_{8}$" x 34' 2"; Roll weight: 100/105 lbs. (1 square)	ASTM D 6164	Granule surfaced SBS Modified Bitumen membrane with non-woven polyester mat reinforcement for mop application. Covered with reflective CoolStar Coating.
Flintlastic FR-P/FR-P Premium CoolStar	39 $^{3}/_{8}$" x 34' 2"; Roll weight: 105 lbs. (1 square)	ASTM D 6164	Fire resistant, granule surfaced SBS Modified Bitumen Membrane with non-woven polyester mat reinforcement for mop application. Covered with reflective CoolStar Coating. Covered with reflective CoolStar Coating.
Ultra Poly SMS	36" x 64'4" (2 squares)	ASTM D 6164, Grade S, Type I	Smooth surfaced SBS Modified Bitumen Membrane with non-woven polyester mat reinforcement for mop applications.

GlasBase™ Base Sheet	36" x 98'9"; Roll weight: 69 lbs. (3 squares)	ASTM D 4601 UL Type G2	Asphalt coated, fiberglass base sheet.
PolySMS Base Sheet	39 $^{3}/_{8}$" x 64' 4"; Roll weight: 90 lbs. (2 squares)	ASTM D 4601, Grade S, Type II UL Type G2	Modified Bitumen coated polyester base sheet.
Yosemite® Buffer Base Sheet	36" x 32'10"; Roll weight: 90 lbs. (1 square)	ASTM D 3909 ASTM D 4897 UL Type 30	Mineral Surfaced fiberglass reinforced buffer sheet.
Black Diamond™ Base Sheet	36" x 68'7"; Roll weight: 78 lbs. (2 squares)	ASTM D 1970	Self-adhering fiberglass reinforced modified bitumen base sheet

APPROVED INSULATIONS:

TABLE 2

Product Name	Product Description	Manufacturer (With Current NOA)
ACFoam-II	Polyisocyanurate foam insulation	Atlas Roofing Corporation
High Density Wood Fiberboard	Wood fiber insulation board	Generic
Perlite Insulation	Perlite insulation board	Generic
Expanded Polystyrene	Polystyrene Insulation	Generic
ISO 95+ GL	Polyisocyanurate foam insulation	Firestone Building Products Co.
H-Shield	Polyisocyanurate foam insulation	Hunter Panels LLC
DensDeck, DensDeck Prime, DensDeck DuraGuard Overlayment Board	Water resistant gypsum board	Georgia Pacific Gypsum LLC
ENRGY 3, ENRGY 3 25 PSI	Polyisocyanurate foam insulation	Johns Manville Corp.
Multi-Max-3, Multi-Max FA-3	Polyisocyanurate roof insulation	RMax Operating, LCC
SECUROCK Gypsum-Fiber Roof Board	Gypsum insulation	US Gypsum

APPROVED FASTENERS:

TABLE 3

Fastener Number	Product Name	Product Description	Dimensions	Manufacturer (With Current NOA)
1.	Dekfast #12, #14 & #15 HS	Insulation fastener for wood, steel and concrete decks		SFS Intec, Inc.
2.	Dekfast DekSpike	Insulation fastener for concrete decks		SFS Intec, Inc.
3.	Dekfast Galvalume Steel Hex Plate	Galvalume hex stress plate.	2 7/8" x 3 ¼"	SFS Intec, Inc.
4.	Dekfast DekFlat Round Lock Plate	Polypropylene locking plate.	3" x 3 ¼"	SFS Intec, Inc.
5.	#12, #14 Roofgrip Fasteners	Insulation fastener for concrete, steel or wood decks.		OMG, Inc.
6.	3 in. Ribbed Galvalume Plate	Galvalume stress plate.	3" round	OMG, Inc.
7.	Gearlok Plastic Plate	Polypropylene round plate	3.2"	OMG, Inc.
8.	CD-10	Insulation fastener for concrete decks.		OMG, Inc.
9.	Fluted Nail	Insulation fastener		OMG, Inc.
10.	AccuTrac Plate	Galvalume stress plate.	3" round	OMG, Inc.
11.	ASAP Roofgrip Pre-Assembled System	Pre-assembled Insulation fastener and plate		OMG, Inc.
12.	OMG Plastic Plate	Polypropylene plastic plate	3" round	OMG, Inc.
13.	OMG 3 in. Round Metal Plates	Galvalume AZ50 steel plate	3" round	OMG, Inc.
14.	Trufast #14 HD Fastener	Coated, carbon steel fastener	various	Altenloh, Brinck & Co. U.S., Inc.
15.	Trufast 3" TL Insulation Plate	Galvalume steel plate	3" round	Altenloh, Brinck & Co. U.S., Inc.
16.	Trufast 3" Metal Insulation Plate	Galvalume steel plate	3.23" round	Altenloh, Brinck & Co. U.S., Inc.
17.	FM-90 Fasteners	Base ply fastening systems for lightweight concrete decks.		ES Products, Inc.
18.	Polymer Gyptec	Glass reinforced Nylon insulation fastener for gypsum & CWF decks.		OMG, Inc.
19.	Polymer Gyptec Insulation Plate	Galvalume stress plate	3" round	OMG, Inc.
20.	Lite-Deck	Insulation fastener for CWF and Gypsum decks.		OMG, Inc.

APPROVED FASTENERS:

TABLE 3

Fastener Number	Product Name	Product Description	Dimensions	Manufacturer (With Current NOA)
21.	Lite-Deck Plate	Galvalume stress plate	3" round	OMG, Inc.
22.	Twin Loc-Nails	Galvanized stress plate and tube with integrated locking staple	2.7" round x various lengths	ES Products, Inc.
23.	FlintFast #12 & #14 Fastener	Insulation and membrane fastener	Various	CertainTeed Corp.
24.	FlintFast 3"	Galvalume AZ50 steel plate	3" round	CertainTeed Corp.
25.	Dekfast 2" Tri-Lock Nylon Plate	Nylon Zytel plastic, barbed, plate	2" round	SFS Intec, Inc.
26.	Dekfast IF-2-SB	Galvalume AZ55 steel plate	2" round	SFS Intec, Inc.
27.	Trufast #12 DP Fastener	Coated, carbon steel fastener	various	Altenloh, Brinck & Co. U.S., Inc.
28.	Trufast #15 EHD Fastener	Coated, carbon steel fastener	various	Altenloh, Brinck & Co. U.S., Inc.

EVIDENCE SUBMITTED:

Test Agency/Identifier	Name	Report	Date
Factory Mutual Research Corp.	FMRC 4470	J.I. 3Y8A1.AM	03/23/96
	FMRC 4470	J.I. 0D3A3.AM	04/04/97
	FMRC 4470	J.I. 2D0A0.AM	12/23/98
	FMRC 4470	J.I. 1D7A4.AM	11/09/98
Underwriters Laboratories, Inc.	UL 790	R11656	01/11/13
United States Testing Company	ASTM D 5147	97457-4	06/03/88
	ASTM D 5147	97-457-2R	12/02/87
Momentum Technologies, Inc.	ASTM D 4601	AX31G8D	09/05/08
	ASTM D6164	AX31G8F	06/05/09
	ASTM D6222	AX31G8G	06/05/09
	ASTM D 3909/ D 4897	AX31G8C	09/05/08
Trinity|ERD	TAS 114(J)	#3504.06.01-1	06/05/01
	TAS 117 (B)	3503.10.06	10/10/06
	TAS 117 (B)	O6490.04.07-R1	06/27/07
	TAS 114 (H)	Letter	04/05/06
	TAS 114	3533.01.06	01/06/06
	TAS 114	3521.07.04	07/29/04
	TAS 117 (B)/ ASTM D 6862	C8500SC.11.07	11/30/07
	TAS 114	C8370.08.08	08/19/08
	ASTM Physical Properties	C10080.09.08-R4	03/25/10
	ASTM D6164/D4798	C31410.01.11-2	01/10/11
	ASTM D4601	C40050.09.12-1	09/28/12
	ASTM D1970	C40050.09.12-2	09/28/12
	ASTM D5147/D4798	C31410.10.10-R1	11/01/12
	ASTM D5147/D4798	C31410.01.11-1-R1	11/01/12
	ASTM D4798	C31410.01.11-2A-R1	02/21/13
	ASTM D4798	C31410.12.13	12/05/13
	ASTM D6222	C40050.12.13	12/05/13
PRI Construction Materials Technologies LLC	ASTM D6163	CTC-032-02-01	01/22/08
	ASTM D6163	CTC-066-02-01	08/09/11
	ASTM D6164	CTC-068-02-01	08/09/11
	ASTM D6222	CTC-070-02-01	08/09/11
	ASTM D6164/D4798	CTC-093-02-01	08/09/11
	ASTM D2178	CTC-122-02-01	03/13/12
	ASTM D2178	CTC-123-02-01	03/13/12
	ASTM D4601	CTC-127-02-01	03/13/12
	ASTM D6163	CTC-128-02-01	06/11/12
	ASTM D6163	CTC-129-02-01	06/11/12
	ASTM D6164	CTC-132-02-01	06/11/12
	ASTM D6164	CTC-162-02-01	05/09/13
	ASTM D6164	CTC-161-02-01	05/09/13
	ASTM D6162	CTC-183-02-01	10/02/13
	ASTM D6164	CTC-190-02-01	12/02/13

APPROVED ASSEMBLIES

Membrane Type: APP Modified

Deck Type 7I: Recover

Deck Description: Gypsum

System Type A(1): Anchor sheet mechanically fastened; all layers of insulation adhered with approved asphalt.

All General and System Limitations apply.

Anchor Sheet: One ply of All Weather/Empire Base Sheet, Glas-Base, Flexiglas Base, Flexiglas FR Base or PolySMS base mechanically attached to the deck as detailed below.

Fastening: FM-90 Assembled Base Sheet Fasteners spaced 9" o.c. in min. 2" side lap and two staggered rows in center of the sheet, 12" o.c.

One or more layers of any of the following insulations:

Insulation Layer	Insulation Fasteners Table 3	Fastener Density/ft^2
ACFoam-II, ENRGY 3, ENRGY 3 25 PSI, H-Shield Minimum 1.5" thick	**N/A**	**N/A**
Approved High Density Wood Fiberboard Minimum ½" thick	**N/A**	**N/A**
Approved Perlite Minimum ¾" thick	**N/A**	**N/A**
DensDeck, DensDeck Prime Minimum ¼" thick	**N/A**	**N/A**

Note: All insulation shall be adhered to the anchor sheet in full mopping of approved hot asphalt within the EVT range and at a rate of 20-40 lbs./100 ft^2. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side facing down.

Ply Sheet: (Optional) One ply of All Weather/Empire Base Sheet, Glas-Base, Flexiglas Base, Flexiglas FR Base, PolySMS or one or more plies of Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) adhered to the base sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or one ply of Black Diamond Base Sheet self-adhered or Flintlastic STA torch adhered.

Membrane: Flintlastic GTA, Flintlastic GTA CoolStar, Flintlastic GTR-FR or Flintlastic GTA-FR CoolStar torch adhered to base or ply sheet.

Surfacing: (Optional) Any coating, listed below, used as a surfacing, must be listed within a current NOA. Install one of the following:

1. 400 lb./sq. gravel or 300 lb./sq. slag in a flood coat of approved mopping asphalt at an application rate of 60 lb./sq..
2. Karnak (#97 AF) Fibrated Aluminum Roof Coating, APOC #212 Fibrated Aluminum Roof Coating at an application rate of 1 ½ gal./sq.

Maximum Design Pressure: –60 psf (See General Limitation #9.)

Membrane Type: SBS Modified

Deck Type 7I: Recover

Deck Description: Gypsum

System Type A(2): Anchor sheet mechanically fastened; all layers of insulation adhered with approved asphalt.

All General and System Limitations apply.

Anchor Sheet: One ply of All Weather/Empire Base Sheet, Glas-Base, Flexiglas Base, Flexiglas FR Base or PolySMS base mechanically attached to the deck as detailed below.

Fastening: FM-90 Assembled Base Sheet Fasteners spaced 9" o.c. in min. 2" side lap and two staggered rows in center of the sheet, 12" o.c.

One or more layers of any of the following insulations:

Insulation Layer	Insulation Fasteners Table 3	Fastener Density/ft^2
ACFoam-II, ENRGY 3, ENRGY 3 25 PSI, H-Shield Minimum 1.5" thick	**N/A**	**N/A**
Approved High Density Wood Fiberboard Minimum ½" thick	**N/A**	**N/A**
Approved Perlite Minimum ¾" thick	**N/A**	**N/A**
DensDeck, DensDeck Prime Minimum ¼" thick	**N/A**	**N/A**

Note: All insulation shall be adhered to the anchor sheet in full mopping of approved hot asphalt within the EVT range and at a rate of 20-40 lbs./100 ft^2. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side facing down.

Ply Sheet: (Optional) One ply of All Weather/Empire Base Sheet, Glas-Base, Flexiglas Base, Flexiglas FR Base, PolySMS or one or more plies of Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) adhered to the base sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or one ply of Black Diamond Base Sheet (for use with a torched cap sheet only) self-adhered.

Membrane: One ply of Flintlastic GMS, Flintlastic GMS CoolStar, Flintlastic Premium GMS, Flintlastic Premium GMS CoolStar, Flintlastic FR-P, Flintlastic FR-P CoolStar, Flintlastic Premium FR-P, Flintlastic Premium FR-P CoolStar, Flintlastic FR-PG Flintlastic FR Cap or Flintlastic FR Cap CoolStar adhered to base or ply sheet with approved mopping asphalt applied within the EVT range and at a rate of 20 to 40 lbs./sq. or Flintlastic FR Cap T or Flintlastic FR Cap T CoolStar torch adhered to base or ply sheet.

Surfacing: (Optional) Any coating, listed below, used as a surfacing, must be listed within a current NOA. Install one of the following:

1. 400 lb./sq. gravel or 300 lb./sq. slag in a flood coat of approved mopping asphalt at an application rate of 60 lb./sq..
2. Karnak (#97 AF) Fibrated Aluminum Roof Coating, APOC #212 Fibrated Aluminum Roof Coating at an application rate of 1 ½ gal./sq.

Maximum Design Pressure: –60 psf (See General Limitation #9.)

Membrane Type: APP Modified

Deck Type 7I: Recover

Deck Description: Gypsum/ Cementitious Wood Fiber/ Lightweight Insulating Concrete

System Type A(3): Anchor sheet mechanically fastened; all insulation layers adhered with approved asphalt.

All General and System Limitations apply.

Anchor Sheet: One ply of Glas-Base, Flexiglas Base, Flexiglas FR Base or All Weather/Empire Base mechanically attached to the deck as detailed below:

Fastening: Fastening #1 Twin Loc-Nails spaced 7" o.c. in 4" side lap and two staggered rows in center of the sheet, 7" o.c.
(Maximum Design Pressure –60 psf, See General Limitation #7.)

Fastening #2 Twin Loc-Nails spaced 9" o.c. in 4" side lap and two staggered rows in center of the sheet, 9" o.c.
(Maximum Design Pressure –60 psf, See General Limitation #7.)

One or more layers of any of the following insulations:

Base Insulation Layer	**Insulation Fasteners**	**Fastener Density/ft^2**
ACFoam-II, **ENRGY 3, FlintBoard ISO, Multi-Max-3, H-Shield Minimum 1.5" thick**	**N/A**	**N/A**
Top Insulation Layer	**Insulation Fasteners**	**Fastener Density/ft^2**
FescoBoard Minimum 0.75" thick	**N/A**	**N/A**
Approved High Density Wood Fiberboard Minimum 0.5" thick	**N/A**	**N/A**

Note: All insulation shall be adhered to the anchor sheet in full mopping of approved hot asphalt within the EVT range and at a rate of 20-40 lbs./100 ft^2. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side facing down.

Base Sheet: One ply of All Weather/Empire Base Sheet, Glas-Base, Flexiglas Base, Flexiglas FR Base, Poly SMS, Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) adhered to the insulated substrate with approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Ply Sheet:	(Optional) One ply of All Weather/Empire Base Sheet, Glas-Base, Flexiglas Base, Flexiglas FR Base, PolySMS or one or more plies of Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) adhered to the base sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or one ply of Black Diamond Base Sheet self-adhered or Flintlastic STA torch adhered.
Membrane:	One ply of Flintlastic FR Cap T, Flintlastic FR Cap T CoolStar, Flintlastic GTA, Flintlastic GTA CoolStar, Flintlastic GTA-FR or Flintlastic GTA-FR CoolStar torch adhered to base sheet or ply sheet.
Maximum Design Pressure:	See fastening requirements above

Membrane Type: SBS Modified

Deck Type 7I: Recover

Deck Description: Gypsum/ Cementitious Wood Fiber/ Lightweight Insulating Concrete

System Type A(4): Anchor sheet mechanically fastened; all insulation layers adhered with approved asphalt.

All General and System Limitations apply.

Anchor Sheet: One ply of Glas-Base, Flexiglas Base, Flexiglas FR Base or All Weather/Empire Base mechanically attached to the deck as detailed below.

Fastening: Fastening #1 Twin Loc-Nails spaced 7" o.c. in 4" side lap and two staggered rows in center of the sheet, 7" o.c.
(Maximum Design Pressure –60 psf, See General Limitation #7.)

Fastening #2 Twin Loc-Nails spaced 9" o.c. in 4" side lap and two staggered rows in center of the sheet, 9" o.c.
(Maximum Design Pressure –60 psf, See General Limitation #7.)

One or more layers of any of the following insulations:

Base Insulation Layer	**Insulation Fasteners**	**Fastener Density/ft^2**
ACFoam-II, **ENRGY 3, FlintBoard ISO, Multi-Max-3, H-Shield Minimum 1.5" thick**	**N/A**	**N/A**

Top Insulation Layer	**Insulation Fasteners**	**Fastener Density/ft^2**
FescoBoard Minimum 0.75" thick	**N/A**	**N/A**
Approved High Density Wood Fiberboard Minimum 0.5" thick	**N/A**	**N/A**

Note: All insulation shall be adhered to the anchor sheet in full mopping of approved hot asphalt within the EVT range and at a rate of 20-40 lbs./100 ft^2. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side facing down.

Base Sheet: One ply of All Weather/Empire Base Sheet, Glas-Base, Flexiglas Base, Flexiglas FR Base, Poly SMS, Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) adhered to the insulated substrate with approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Ply Sheet:	(Optional) One ply of All Weather/Empire Base Sheet, Glas-Base, Flexiglas Base, Flexiglas FR Base, PolySMS or one or more plies of Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) adhered to the base sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or one ply of Black Diamond Base Sheet (for use with a torched cap sheet only) self-adhered.
Membrane:	One ply of Flintlastic GMS, Flintlastic GMS CoolStar, Flintlastic Premium GMS, Flintlastic Premium GMS CoolStar, Flintlastic FR-P, Flintlastic FR-P CoolStar, Flintlastic FR Cap, Flintlastic FR Cap CoolStar Sheet applied to the base sheet or ply sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or Flintlastic FR Cap T or Flintlastic FR Cap T CoolStar torch adhered to base or ply sheet.
Maximum Design Pressure:	See fastening requirements above

Membrane Type: APP/SBS Modified

Deck Type 7I: Recover

Deck Description: 2500 psi structural concrete or concrete plank

System Type A(5): Base sheet and insulation adhered with approved asphalt.

All General and System Limitations apply.

One or more layers of any of the following insulations:

Base Insulation Layer	Insulation Fasteners	Fastener Density/ft^2
ACFoam-II, ENRGY 3, FlintBoard ISO, Multi-Max-3, H-Shield Minimum 1.5" thick	**N/A**	**N/A**

Top Insulation Layer	Insulation Fasteners	Fastener Density/ft^2
DuraBoard Minimum 0.5" thick	**N/A**	**N/A**

Note: Concrete deck shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of base sheet. All insulation shall be adhered to the anchor sheet in full mopping of approved hot asphalt within the EVT range and at a rate of 20-40 lbs./100 ft^2. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side facing down.

Base Sheet: One ply of All Weather/Empire Base Sheet, Glas-Base, Flexiglas Base, Flexiglas FR Base, PolySMS, Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) adhered to the insulated substrate with approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Ply Sheet: (Optional) One ply of All Weather/Empire Base Sheet, Glas-Base, Flexiglas Base, Flexiglas FR Base, PolySMS or one or more plies of Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) adhered to the base sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or one ply of Black Diamond Base Sheet self-adhered (only with a torch applied membrane) or Flintlastic STA torch adhered (only with an APP torch applied membrane).

Membrane: One ply of Flintlastic GTA, Flintlastic GTA CoolStar, Flintlastic GTA-FR or Flintlastic GTA-FR CoolStar torch adhered to base sheet or ply sheet.

Or

One ply of Flintlastic GMS, Flintlastic GMS CoolStar, Flintlastic Premium GMS, Flintlastic Premium GMS CoolStar, Flintlastic FR-P, Flintlastic FR-P CoolStar, Flintlastic FR Cap Sheet, Flintlastic FR Cap Sheet CoolStar applied to the base sheet or ply sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or Flintlastic FR Cap T or Flintlastic FR Cap T CoolStar torch adhered to base or ply sheet.

Maximum Design Pressure: -430 psf. (See General Limitation #9).

Membrane Type: APP/SBS Modified

Deck Type 7I: Recover

Deck Description: 2500 psi structural concrete or concrete plank

System Type A(6): Base sheet and insulation adhered with approved asphalt.

All General and System Limitations apply.

One or more layers of any of the following insulations:

Base Insulation Layer	Insulation Fasteners	Fastener Density/ft^2
ACFoam-II, ENRGY 3, FlintBoard ISO, Multi-Max-3, H-Shield Minimum 1.5" thick	**N/A**	**N/A**

Top Insulation Layer	Insulation Fasteners	Fastener Density/ft^2
FescoBoard Minimum 0.75" thick	**N/A**	**N/A**

Note: Concrete deck shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of base sheet. All insulation shall be adhered to the anchor sheet in full mopping of approved hot asphalt within the EVT range and at a rate of 20-40 lbs./100 ft^2. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side facing down.

Base Sheet: One ply of All Weather/Empire Base Sheet, Glas-Base, Flexiglas Base, Flexiglas FR Base, PolySMS, Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) adhered to the insulated substrate with approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Ply Sheet: (Optional) One ply of All Weather/Empire Base Sheet, Glas-Base, Flexiglas Base, Flexiglas FR Base, PolySMS or one or more plies of Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) adhered to the base sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or one ply of Black Diamond Base Sheet self-adhered (only with a torch applied membrane) or Flintlastic STA torch adhered (only with an APP torch applied membrane).

Membrane: One ply of Flintlastic GTA, Flintlastic GTA CoolStar, Flintlastic GTA-FR or Flintlastic GTA-FR CoolStar torch adhered to base sheet or ply sheet.

Or

One ply of Flintlastic GMS, Flintlastic GMS CoolStar, Flintlastic Premium GMS, Flintlastic Premium GMS CoolStar, Flintlastic FR-P, Flintlastic FR-P CoolStar, Flintlastic FR Cap Sheet, Flintlastic FR Cap Sheet CoolStar applied to the base sheet or ply sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or Flintlastic FR Cap T or Flintlastic FR Cap T CoolStar torch adhered to base or ply sheet.

Maximum Design Pressure: -412 psf. (See General Limitation #9).

Membrane Type: APP Modified

Deck Type 7I: Recover

Deck Description: Gypsum/ Cementitious Wood Fiber/ Lightweight Insulating Concrete

System Type A(7): Anchor sheet mechanically fastened; all insulation layers adhered with approved asphalt.

All General and System Limitations apply.

Anchor Sheet: One ply of Glas-Base, Flexiglas Base, Flexiglas FR Base or All Weather/Empire Base mechanically attached to the deck as detailed below.

Fastening: Fastening #1 Twin Loc-Nails spaced 7" o.c. in 4" side lap and two staggered rows in center of the sheet, 7" o.c.
(Maximum Design Pressure –52.5 psf, See General Limitation #7.)

Fastening #2 Twin Loc-Nails spaced 9" o.c. in 4" side lap and two staggered rows in center of the sheet, 9" o.c.
(Maximum Design Pressure –52.5 psf, See General Limitation #7.)

One or more layers of any of the following insulations:

Base Insulation Layer	Insulation Fasteners	Fastener Density/ft^2
ACFoam-II, **ENRGY 3, FlintBoard ISO, Multi-Max-3 , H-Shield Minimum 1.5" thick**	**N/A**	**N/A**

Note: All insulation shall be adhered to the anchor sheet in full mopping of approved hot asphalt within the EVT range and at a rate of 20-40 lbs./100 ft^2. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side facing down.

Base Sheet: One ply of Black Diamond Base Sheet Self Adhered

Ply Sheet: (Optional) One ply of All Weather/Empire Base Sheet, Glas-Base, Flexiglas Base, Flexiglas FR Base, PolySMS or one or more plies of Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) adhered to the base sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or one ply of Black Diamond Base Sheet self-adhered or Flintlastic STA torch adhered.

Membrane: One ply of Flintlastic FR Cap T CoolStar or Flintlastic FR Cap T, Flintlastic GTA, Flintlastic GTA CoolStar, Flintlastic GTA-FR or Flintlastic GTA-FR CoolStar torch adhered to base sheet or ply sheet.

Maximum Design Pressure: See fastening requirements above

Membrane Type: SBS Modified

Deck Type 7I: Recover

Deck Description: Gypsum/ Cementitious Wood Fiber/ Lightweight Insulating Concrete

System Type A(8): Anchor sheet mechanically fastened; all insulation layers adhered with approved asphalt.

All General and System Limitations apply.

Anchor Sheet: One ply of Glas-Base, Flexiglas Base, Flexiglas FR Base or All Weather/Empire Base mechanically attached to the deck as detailed below.

Fastening: Fastening #1 Twin Loc-Nails spaced 7" o.c. in 4" side lap and two staggered rows in center of the sheet, 7" o.c.
(Maximum Design Pressure –52.5 psf, See General Limitation #7.)

Fastening #2 Twin Loc-Nails spaced 9" o.c. in 4" side lap and two staggered rows in center of the sheet, 9" o.c.
(Maximum Design Pressure –52.5 psf, See General Limitation #7.)

One or more layers of any of the following insulations:

Base Insulation Layer	Insulation Fasteners	Fastener Density/ft^2
ACFoam-II, **ENRGY 3, FlintBoard ISO, Multi-Max-3, H-Shield Minimum 1.5" thick**	**N/A**	**N/A**

Note: All insulation shall be adhered to the anchor sheet in full mopping of approved hot asphalt within the EVT range and at a rate of 20-40 lbs./100 ft^2. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side facing down.

Base Sheet: One ply of Black Diamond Base Sheet Self Adhered

Ply Sheet: (Optional) One ply of All Weather/Empire Base Sheet, Glas-Base, Flexiglas Base, Flexiglas FR Base, PolySMS or one or more plies of Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) adhered to the base sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or one ply of Black Diamond Base Sheet self-adhered or Flintlastic STA torch adhered.

Membrane: One ply of Flintlastic GMS, Flintlastic GMS CoolStar, Flintlastic Premium GMS, Flintlastic Premium GMS CoolStar, Flintlastic FR-P, Flintlastic FR-P CoolStar, Flintlastic FR Cap Sheet, Flintlastic FR Cap Sheet CoolStar applied to the base sheet or ply sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or Flintlastic FR Cap T or Flintlastic FR Cap T CoolStar torch adhered to base or ply sheet.

Maximum Design Pressure: See fastening requirements above

Membrane Type: SBS Modified

Deck Type 7I: Recover

Deck Description: Min. 2,500 psi structural concrete or concrete plank.

System Type A(9): One or more layers of insulation adhered with approved asphalt.

All General and System Limitations apply.

One or more layers of any of the following insulations.

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ACFoam-II, FlintBoard ISO, H-Shield Minimum 1.5" thick	**N/A**	**N/A**

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
DensDeck, DensDeck Prime, DensDeck DuraGuard Overlayment Board, SECUROCK Gypsum-Fiber Roof Board Minimum ¼" thick	**N/A**	**N/A**

Note: Concrete deck shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of insulation. All insulation shall be adhered to the deck in full mopping of approved hot asphalt within the EVT range and at a rate of 25 lbs./100 ft^2. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

Base Sheet: One or more layers of Flintlastic FR Base T, torch applied.

Ply Sheet: (Optional) Flintlastic FR Base T, torch applied.

Membrane: Flintlastic FR Cap T, Flintlastic FR Cap T CoolStar, torch applied.

Maximum Design Pressure: -180 psf (See General Limitation # 9)

Membrane Type:	SBS Modified
Deck Type 7I:	Recover
Deck Description:	Min. 2,500 psi structural concrete or concrete plank.
System Type A(10):	One or more layers of insulation adhered with approved asphalt.

All General and System Limitations apply.

One or more layers of any of the following insulations.

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ACFoam II, FlintBoard ISO, H-Shield Minimum 1.5" thick	**N/A**	**N/A**

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
DensDeck, DensDeck Prime Minimum ¼" thick	**N/A**	**N/A**

Note: All insulation shall be adhered to the deck in 3/4" – 1" wide beads of Insta-Stik or Millennium One Step Foamable Insulation Adhesive, spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

Base Sheet:	One or more layers of Flintlastic FR Base T, torch applied.
Ply Sheet:	(Optional) Flintlastic FR Base T, torch applied.
Membrane:	Flintlastic FR Cap T, Flintlastic FR Cap T CoolStar, torch applied.
Maximum Design Pressure:	-112.5 psf (with Insta-Stik) (See General Limitation # 9) -180 psf (with Millennium One Step Foamable Insulation Adhesive) (See General Limitation # 9)

Membrane Type: SBS Modified

Deck Type 7I: Recover

Deck Description: Min. 2,500 psi structural concrete or concrete plank.

System Type A(11): One or more layers of insulation adhered with approved asphalt.

All General and System Limitations apply.

One or more layers of any of the following insulations.

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ACFoam-II, FlintBoard ISO, H-Shield Minimum 1.5" thick	**N/A**	**N/A**

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
SECUROCK Gypsum-Fiber Roof Board Minimum ¼" thick	**N/A**	**N/A**

Note: All insulation shall be adhered to the deck in 3/4" – 1" wide beads of Insta-Stik or Millennium Pourable Foam Insulation Adhesive or 1" wide ribbons of OlyBond 500 or SpotShot, spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

Base Sheet: One or more layers of Flintlastic FR Base T, torch applied.

Ply Sheet: (Optional) Flintlastic FR Base T, torch applied.

Membrane: Flintlastic FR Cap T, Flintlastic FR Cap T CoolStar, torch applied.

Maximum Design Pressure: -180 psf (See General Limitation # 9)

Membrane Type: SBS Modified

Deck Type 7I: Recover

Deck Description: Min. 2,500 psi structural concrete or concrete plank.

System Type A(12): One or more layers of insulation adhered with approved asphalt.

All General and System Limitations apply.

One or more layers of any of the following insulations.

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ACFoam-II, FlintBoard ISO, H-Shield Minimum 1.5" thick	**N/A**	**N/A**

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
SECUROCK Gypsum-Fiber Roof Board, DensDeck, DensDeck Prime Minimum ¼" thick	**N/A**	**N/A**

Note: All insulation shall be adhered to the deck in ½" – ¾" wide beads of Millennium One Step Foamable Adhesive or in full coverage of OlyBond Adhesive Fastener applied at a rate of 1 gal/sq. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

Base Sheet: One or more layers of Flintlastic FR Base T, torch applied.

Ply Sheet: (Optional) Flintlastic FR Base T, torch applied.

Membrane: Flintlastic FR Cap T, Flintlastic FR Cap T CoolStar, torch applied.

Maximum Design Pressure: -180 psf (See General Limitation # 9)

Membrane Type: SBS Modified

Deck Type 7I: Recover

Deck Description: Min. 2,500 psi structural concrete or concrete plank.

System Type A(13): One or more layers of insulation adhered with approved asphalt.

All General and System Limitations apply.

One or more layers of any of the following insulations.

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ACFoam-II, FlintBoard ISO, H-Shield Minimum 1.5" thick	**N/A**	**N/A**

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
DensDeck, DensDeck Prime Minimum ¼" thick	**N/A**	**N/A**

Note: All insulation shall be adhered to the deck in 1" wide ribbons of OlyBond 500 or SpotShot, spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

Base Sheet: One or more layers of Flintlastic FR Base T, torch applied.

Ply Sheet: (Optional) Flintlastic FR Base T, torch applied.

Membrane: Flintlastic FR Cap T, Flintlastic FR Cap T CoolStar, torch applied.

Maximum Design Pressure: -150 psf (See General Limitation # 9)

Membrane Type: SBS Modified

Deck Type 7I: Recover

Deck Description: Min. 2,500 psi structural concrete or concrete plank.

System Type A(14): One or more layers of insulation adhered with approved asphalt.

All General and System Limitations apply.

One or more layers of any of the following insulations.

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ACFoam-II, FlintBoard ISO, H-Shield Minimum 1.5" thick	**N/A**	**N/A**

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
DensDeck, DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board Minimum ¼" thick	**N/A**	**N/A**

Note: All insulation shall be adhered to the deck in 3" – 3.5" wide ribbons of Tite-Set Roofing Adhesive or 3M Polyurethane Foam Insulation Adhesive CR-20, spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

Base Sheet: One or more layers of Flintlastic FR Base T, torch applied.

Ply Sheet: (Optional) Flintlastic FR Base T, torch applied.

Membrane: Flintlastic FR Cap T, Flintlastic FR Cap T CoolStar, torch applied.

Maximum Design Pressure: -180 psf (See General Limitation # 9)

Membrane Type: APP Modified

Deck Type 7I: Recover

Deck Description: Steel/Concrete

System Type B(1): Base layers of insulation mechanically fastened, optional top layer adhered with approved asphalt.

All General and System Limitations apply.

One or more layers of any of the following insulations.

Base Insulation Layer	Insulation Fasteners Table 3	Fastener Density/ft^2
ACFoam-II, ENRGY 3, ENRGY 3 25 PSI, H-Shield Minimum 1.5" thick	**Approved Fastener for Deck Type**	**1:2 ft²**
Approved Perlite Minimum ¾" thick	**Approved Fastener for Deck Type**	**1:2 ft²**
Approved High Density Wood Fiberboard Minimum ½" thick	**Approved Fastener for Deck Type**	**1:2 ft²**

Note: Base layers of insulation shall be mechanically attached using the fastener density listed. The insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Insulation fasteners shall be tested for withdrawal resistance in compliance with Protocol TAS 105 to confirm compliance with the wind load requirements. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation Layer (Optional)	Insulation Fasteners	Fastener Density/ft^2
Approved High Density Wood Fiberboard Minimum ½" thick	**N/A**	**N/A**
Approved Perlite Minimum ¾" thick	**N/A**	**N/A**
DensDeck, DensDeck Prime Minimum ¼" thick	**N/A**	**N/A**

Note: Optional top layer of insulation shall be adhered with approved asphalt within the EVT range and at a rate of 20-40 lbs./100 ft^2. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Composite insulation boards used as a top layer shall be installed with the polyisocyanurate face down.

Base Sheet: One ply of All Weather/Empire Base Sheet, Glas-Base, Flexiglas Base, Flexiglas FR Base, PolySMS, Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) adhered to the insulated substrate with approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Ply Sheet: (Optional) One ply of All Weather/Empire Base Sheet, Glas-Base, Flexiglas Base, Flexiglas FR Base, PolySMS or one or more plies of Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) adhered with approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or one ply of Black Diamond Base Sheet self-adhered or Flintlastic STA torch adhered.

Membrane: Flintlastic GTA, Flintlastic GTA CoolStar, Flintlastic GTA-FR or GTA-FR CoolStar torch adhered to base or ply sheet.

Surfacing: (Optional) Any coating, listed below, used as a surfacing, must be listed within a current NOA. Install one of the following:

1. 400 lb./sq. gravel or 300 lb./sq. slag in a flood coat of approved mopping asphalt at an application rate of 60 lb./sq..
2. Karnak (#97 AF) Fibrated Aluminum Roof Coating, APOC #212 Fibrated Aluminum Roof Coating at an application rate of 1 ½ gal./sq.

Maximum Design Pressure: -52.5 psf (steel and concrete decks) (See General Limitation #9)

Membrane Type: SBS Modified

Deck Type 7I: Recover

Deck Description: Steel/Concrete

System Type B(2): Base layers of insulation mechanically fastened, optional top layer adhered with approved asphalt.

All General and System Limitations apply.

One or more layers of any of the following insulations.

Base Insulation Layer	Insulation Fasteners Table 3	Fastener Density/ft^2
ACFoam-II, ENRGY 3, ENRGY 3 25 PSI, H-Shield Minimum 1.5" thick	**Approved Fastener for Deck Type**	**1:2 ft²**
Approved Perlite Minimum ¾" thick	**Approved Fastener for Deck Type**	**1:2 ft²**
Approved High Density Wood Fiberboard Minimum ½" thick	**Approved Fastener for Deck Type**	**1:2 ft²**

Note: Base layers of insulation shall be mechanically attached using the fastener density listed. The insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Insulation fasteners shall be tested for withdrawal resistance in compliance with Protocol TAS 105 to confirm compliance with the wind load requirements. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation Layer (Optional)	Insulation Fasteners	Fastener Density/ft^2
Approved High Density Wood Fiberboard Minimum ½" thick	**N/A**	**N/A**
Approved Perlite Minimum ¾" thick	**N/A**	**N/A**
DensDeck, DensDeck Prime Minimum ¼" thick	**N/A**	**N/A**

Note: Optional top layer of insulation shall be adhered with approved asphalt within the EVT range and at a rate of 20-40 lbs./100 ft^2. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Composite insulation boards used as a top layer shall be installed with the polyisocyanurate face down.

Base Sheet: One ply of All Weather/Empire Base Sheet, Glas-Base, Flexiglas Base, Flexiglas FR Base, PolySMS, Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) adhered to the insulated substrate with approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Ply Sheet: (Optional) One ply of All Weather/Empire Base Sheet, Glas-Base, Flexiglas Base, Flexiglas FR Base, PolySMS or one or more plies of Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) adhered to the base sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.. Or one ply of Black Diamond Base Sheet (for use with a torched cap sheet only) self-adhered.

Membrane: One ply of Flintlastic GMS, Flintlastic GMS CoolStar, Flintlastic Premium GMS, Flintlastic Premium GMS CoolStar, Flintlastic FR-P, Flintlastic FR-P CoolStar, Flintlastic Premium FR-P, Flintlastic Premium FR-P CoolStar, Flintlastic FR-PG, Flintlastic FR Cap or Flintlastic FR Cap CoolStar adhered to base or ply sheet with approved mopping asphalt applied within the EVT range and at a rate of 20 to 40 lbs./sq. or Flintlastic FR Cap T or Flintlastic FR Cap T CoolStar torch adhered to base or ply sheet.

Surfacing: (Optional) Any coating, listed below, used as a surfacing, must be listed within a current NOA. Install one of the following:

1. 400 lb./sq. gravel or 300 lb./sq. slag in a flood coat of approved mopping asphalt at an application rate of 60 lb./sq..
2. Karnak (#97 AF) Fibrated Aluminum Roof Coating, APOC #212 Fibrated Aluminum Roof Coating at an application rate of 1 ½ gal./sq.

Maximum Design Pressure: -52.5 psf (steel and concrete decks) (See General Limitation #9)

Membrane Type: APP Modified

Deck Type 7I: Recover

Deck Description: Steel/Concrete

System Type C(1): All layers of insulation simultaneously attached.

All General and System Limitations apply.

One or more layers of any of the following insulations.

Base Insulation Layer (Optional)	Insulation Fasteners Table 3	Fastener Density/ft^2
ACFoam-II, ENRGY 3, ENRGY 3 25 PSI, H-Shield Minimum 1.5" thick	**N/A**	**N/A**
Approved High Density Wood Fiber Minimum ½" thick	**N/A**	**N/A**
Approved Perlite Minimum ¾" thick	**N/A**	**N/A**
DensDeck, DensDeck Prime Minimum ¼" thick	**N/A**	**N/A**

Note: All layers shall be simultaneously attached; see top layer below for fasteners and density.

Top Insulation Layer	Insulation Fasteners Table 3	Fastener Density/ft^2
Approved Perlite Minimum ¾" thick	**Approved Fastener for Deck Type**	**1:2 ft²**
DensDeck, DensDeck Prime Minimum ¼" thick	**Approved Fastener for Deck Type**	**1:2 ft²**
Approved High Density Wood Fiberboard Minimum ½" thick	**Approved Fastener for Deck Type**	**1:2 ft²**

Note: All layers of insulation shall be mechanically attached using the fastener density listed above. The insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Insulation fasteners shall be tested for withdrawal resistance in compliance with Testing Application Standard TAS 105 to confirm compliance with the wind load requirements. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Base Sheet: One ply of All Weather/Empire Base Sheet, Glas-Base, Flexiglas Base, Flexiglas FR Base, PolySMS, Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) adhered to the insulated substrate with approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Ply Sheet: (Optional) One ply of All Weather/Empire Base Sheet, Glas-Base, Flexiglas Base, Flexiglas FR Base, PolySMS or one or more plies of Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) adhered to the base sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or one ply of Black Diamond Base Sheet self-adhered or Flintlastic STA torch adhered.

Membrane: Flintlastic GTA, Flintlastic GTA CoolStar, Flintlastic GTA-FR or GTA-FR CoolStar torch adhered to base or ply sheet.

Surfacing: (Optional) Any coating, listed below, used as a surfacing, must be listed within a current NOA. Install one of the following:

1. 400 lb./sq. gravel or 300 lb./sq. slag in a flood coat of approved mopping asphalt at an application rate of 60 lb./sq..
2. Karnak (#97 AF) Fibrated Aluminum Roof Coating, APOC #212 Fibrated Aluminum Roof Coating at an application rate of 1 ½ gal./sq.

Maximum Design Pressure: -52.5 psf (steel and concrete decks) (See General Limitation #9)

Membrane Type: SBS Modified

Deck Type 7I: Recover

Deck Description: Steel/Concrete

System Type C(2): All layers of insulation simultaneously attached.

All General and System Limitations apply.

One or more layers of any of the following insulations.

Base Insulation Layer (Optional)	Insulation Fasteners Table 3	Fastener Density/ft^2
ACFoam-II, ENRGY 3, ENRGY 3 25 PSI, H-Shield Minimum 1.5" thick	**N/A**	**N/A**
Approved High Density Wood Fiber Minimum ½" thick	**N/A**	**N/A**
Approved Perlite Minimum ¾" thick	**N/A**	**N/A**
DensDeck, DensDeck Prime Minimum ¼" thick	**N/A**	**N/A**

Note: All layers shall be simultaneously attached; see top layer below for fasteners and density.

Top Insulation Layer	Insulation Fasteners Table 3	Fastener Density/ft^2
Approved Perlite Minimum ¾" thick	**Approved Fastener for Deck Type**	**1:2 ft²**
DensDeck, DensDeck Prime Minimum ¼" thick	**Approved Fastener for Deck Type**	**1:2 ft²**
Approved High Density Wood Fiberboard Minimum ½" thick	**Approved Fastener for Deck Type**	**1:2 ft²**

Note: All layers of insulation shall be mechanically attached using the fastener density listed above. The insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Insulation fasteners shall be tested for withdrawal resistance in compliance with Testing Application Standard TAS 105 to confirm compliance with the wind load requirements. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Base Sheet: One ply of All Weather/Empire Base Sheet, Glas-Base, Flexiglas Base, Flexiglas FR Base, PolySMS, Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) adhered to the insulated substrate with approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Ply Sheet: (Optional) One ply of All Weather/Empire Base Sheet, Glas-Base, Flexiglas Base, Flexiglas FR Base, PolySMS or one or more plies of Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) adhered to the base sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.. Or one ply of Black Diamond Base Sheet (for use with a torched cap sheet only) self-adhered.

Membrane: One ply of Flintlastic GMS, Flintlastic GMS CoolStar, Flintlastic Premium GMS, Premium GMS CoolStar, Flintlastic FR-P, Flintlastic FR-P CoolStar, Flintlastic Premium FR-P, Flintlastic Premium FR-P CoolStar, Flintlastic FR-PG, Flintlastic FR Cap or Flintlastic FR Cap CoolStar adhered to base or ply sheet with approved mopping asphalt applied within the EVT range and at a rate of 20 to 40 lbs./sq. or Flintlastic FR Cap T or Flintlastic FR Cap T CoolStar torch adhered to base or ply sheet.

Surfacing: (Optional) Any coating, listed below, used as a surfacing, must be listed within a current NOA. Install one of the following:

1. 400 lb./sq. gravel or 300 lb./sq. slag in a flood coat of approved mopping asphalt at an application rate of 60 lb./sq..
2. Karnak (#97 AF) Fibrated Aluminum Roof Coating, APOC #212 Fibrated Aluminum Roof Coating at an application rate of 1 ½ gal./sq.

Maximum Design Pressure: -52.5 psf (steel and concrete decks) (See General Limitation #9)

Membrane Type: APP/SBS Modified

Deck Type 7I: Recover

Deck Description: Min. 2,500 psi concrete; or min. 22 ga Type B, Grade 80 steel, fastened to structural supports spaced a maximum 5 ft. o.c. with Traxx/5 screws spaced maximum 6 in. o.c. Side laps are fastened with Traxx/1 screws spaced maximum 20 in. o.c. *The deck shall record a Minimum Characteristic Resistance Force (MCRF) of 221 lbf. when tested with fasteners, listed in this assembly, installed through to the deck in accordance with TAS 105.

System Type D(1): All layers of insulation and base sheet simultaneously attached.

All General and System Limitations apply.

One or more layers of any of the following insulations.

Base Insulation Layer (Optional)	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ACFoam-II, ENRGY 3, FlintBoard ISO, H-Shield, Multi-Max FA-3, H-Shield Minimum 1" thick	**N/A**	**N/A**
Approved Expanded Polystyrene (min 1.25 pcf) Minimum 1" thick	**N/A**	**N/A**
Approved Perlite Minimum ¾" thick	**N/A**	**N/A**
Approved High Density Wood Fiberboard Minimum ½" thick	**N/A**	**N/A**
DensDeck, DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board Minimum ¼" thick	**N/A**	**N/A**

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ACFoam-II, ENRGY 3, FlintBoard ISO, H-Shield, Multi-Max FA-3, H-Shield Minimum 1" thick	**N/A**	**N/A**
Approved Expanded Polystyrene (min 1.25 pcf) Minimum 1" thick	**N/A**	**N/A**
Approved High Density Wood Fiberboard Minimum ½" thick	**N/A**	**N/A**
Approved Perlite Minimum ¾" thick	**N/A**	**N/A**
DensDeck, DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board Minimum ¼" thick	**N/A**	**N/A**

Note: Top layer shall have preliminary attachment, prior to the installation of the base/anchor sheet, at an application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft. All layers of insulation and base sheet shall be simultaneously fastened. See base/anchor sheet below for fasteners and density.

Base Sheet:	One ply of Poly SMS or Ultra Poly SMS, mechanically attached as detailed below:
Fastening #1:	OMG #14 Roofgrip fasteners and OMG 3 in. Round Metal Plates, Dekfast 14 fasteners with Dekfast Galvalume Steel Hex Plates, or Trufast #14 HD Fasteners with Trufast 3" Metal Insulation Plates or FlintFast #14 screws and FlintFast 3" plates at 12" o.c. in the 4" wide lap and 12" o.c. in two equally spaced staggered rows in the field.
Ply Sheet:	(Optional) Flintlastic FR Base T, torch applied.
Membrane:	Flintlastic FR Cap T, Flintlastic Cap T CoolStar, torch applied.
Maximum Design Pressure:	-112.5 psf (See General Limitation # 7)

Membrane Type: APP Modified

Deck Type 7I: Recover

Deck Description: Gypsum/ Cementitious Wood Fiber

System Type E(1): Base sheet mechanically fastened, over smooth surface roof system only.

All General and System Limitations apply.

Base Sheet: One ply of All Weather/Empire Base Sheet, Glas-Base, Flexiglas Base, Flexiglas FR Base or PolySMS base fastened to the deck as detailed below.

Fastening *(gypsum):* Fastening #1: FM-90 Assembled Base Sheet Fasteners spaced 9" o.c. in min. 2" side lap and two staggered rows in center of the sheet, 12" o.c.
(Maximum Design Pressure –60 psf, See General Limitation #9.)

Fastening #2: Twin Loc-Nails spaced 7" o.c. in 4" side lap and two staggered rows in center of the sheet, 7" o.c.
(Maximum Design Pressure –67.5 psf, See General Limitation #9.)

Fastening #3: Twin Loc-Nails spaced 9" o.c. in 4" side lap and two staggered rows in center of the sheet, 9" o.c.
(Maximum Design Pressure –60 psf, See General Limitation #9.)

Fastening *(cwf):* Fastening #1: Twin Loc-Nails spaced 7" o.c. in 4" side lap and two staggered rows in center of the sheet, 7" o.c.
(Maximum Design Pressure –67.5 psf, See General Limitation #9.)

Fastening #2: Twin Loc-Nails spaced 9" o.c. in 4" side lap and two staggered rows in center of the sheet, 9" o.c.
(Maximum Design Pressure –60 psf, See General Limitation #9.)

Ply Sheet: (Optional) One ply of All Weather/Empire Base Sheet, Glas-Base, Flexiglas Base, Flexiglas FR Base, PolySMS or one or more plies of Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) adhered to the base sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40. Or one ply of Black Diamond Base Sheet self-adhered or Flintlastic STA torch adhered.

Membrane: Flintlastic GTA, Flintlastic GTA CoolStar, Flintlastic GTA-FR or GTA-FR CoolStar torch adhered to base or ply sheet.

Surfacing: (Optional) Any coating, listed below, used as a surfacing, must be listed within a current NOA. Install one of the following:

1. 400 lb./sq. gravel or 300 lb./sq. slag in a flood coat of approved mopping asphalt at an application rate of 60 lb./sq..
2. Karnak (#97 AF) Fibrated Aluminum Roof Coating, APOC #212 Fibrated Aluminum Roof Coating at an application rate of 1 ½ gal./sq.

Maximum Design Pressure: See Fastening Requirements above.

Membrane Type: SBS Modified

Deck Type 7I: Recover

Deck Description: Gypsum/ Cementitious Wood Fiber

System Type E(2): Base sheet mechanically fastened, over smooth surface roof system only.

All General and System Limitations apply.

Base Sheet: One ply of All Weather/Empire Base Sheet, Glas-Base, Flexiglas Base, Flexiglas FR Base or PolySMS base fastened to the deck as detailed below.

Fastening *(gypsum):* Fastening #1: FM-90 Assembled Base Sheet Fasteners spaced 9" o.c. in min. 2" side lap and two staggered rows in center of the sheet, 12" o.c.
(Maximum Design Pressure –60 psf, See General Limitation #9.)

Fastening #2: Twin Loc-Nails spaced 7" o.c. in 4" side lap and two staggered rows in center of the sheet, 7" o.c.
(Maximum Design Pressure –60 psf, See General Limitation #9.)

Fastening #3: Twin Loc-Nails spaced 9" o.c. in 4" side lap and two staggered rows in center of the sheet, 9" o.c.
(Maximum Design Pressure –60 psf, See General Limitation #9.)

Fastening *(cwf):* Fastening #1: Twin Loc-Nails spaced 7" o.c. in 4" side lap and two staggered rows in center of the sheet, 7" o.c.
(Maximum Design Pressure –67.5psf, See General Limitation #9.)

Fastening #2: Twin Loc-Nails spaced 9" o.c. in 4" side lap and two staggered rows in center of the sheet, 9" o.c.
(Maximum Design Pressure –60 psf, See General Limitation #9.)

Ply Sheet: (Optional) One ply of All Weather/Empire Base Sheet, Glas-Base, Flexiglas Base, Flexiglas FR Base, PolySMS or one or more plies of Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) adhered to the base sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40. Or one ply of Black Diamond Base Sheet (for use with a torched cap sheet only) self-adhered.

Membrane: One ply of Flintlastic GMS, Flintlastic GMS CoolStar, Flintlastic Premium GMS, Flintlastic Premium GMS CoolStar, Flintlastic FR-P, Flintlastic FR-P CoolStar, Flintlastic Premium FR-P, Flintlastic Premium FR-P CoolStar, Flintlastic FR-PG, Flintlastic FR Cap or Flintlastic FR Cap CoolStar adhered to base or ply sheet with approved mopping asphalt applied within the EVT range and at a rate of 20 to 40 lbs./sq. or Flintlastic FR Cap T or Flintlastic FR Cap T CoolStar torch adhered to base or ply sheet.

Surfacing: (Optional) Any coating, listed below, used as a surfacing, must be listed within a current NOA. Install one of the following:

1. 400 lb./sq. gravel or 300 lb./sq. slag in a flood coat of approved mopping asphalt at an application rate of 60 lb./sq..
2. Karnak (#97 AF) Fibrated Aluminum Roof Coating, APOC #212 Fibrated Aluminum Roof Coating at an application rate of 1 ½ gal./sq.

Maximum Design Pressure: See Fastening Requirements above.

Membrane Type: APP/SBS Modified

Deck Type 7I: Recover

Deck Description: Gypsum / Cementitious Wood Fiber / Lightweight Concrete

System Type E(3): Base sheet mechanically fastened.

All General and System Limitations apply.

Base Sheet: One ply of All Weather/Empire Base Sheet, GlasBase, Flexiglas Base, Flexiglas FR Base mechanically fastened to the deck as detailed below.

Fastening #1: Twin Loc-Nails spaced 7" o.c. in 4" side lap and two staggered rows in center of the sheet, 7" o.c.
(Maximum Design Pressure –67.5 psf, See General Limitation #9.)

Fastening #2: Twin Loc-Nails spaced 9" o.c. in 4" side lap and two staggered rows in center of the sheet, 9" o.c.
(Maximum Design Pressure –60 psf, See General Limitation #9.)

Ply Sheet: (Optional) One ply of All Weather/Empire Base Sheet, GlasBase, Flexiglas Base, Flexiglas FR Base, PolySMS or one or more plies of Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) adhered to the base sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or one ply of Black Diamond Base Sheet self-adhered or Flintlastic STA torch adhered.

Membrane: One ply of Flintlastic FR Cap T, Flintlastic FR Cap T CoolStar, Flintlastic GTA, Flintlastic GTA CoolStar, Flintlastic GRA-FR or Flintlastic GTA-FR CoolStar torch adhered to base sheet or ply sheet.

Surfacing: (Optional) Any coating, listed below, used as a surfacing, must be listed within a current NOA. Install one of the following:

1. 400 lb./sq. gravel or 300 lb./sq. slag in a flood coat of approved mopping asphalt at an application rate of 60 lb./sq..
2. Karnak (#97 AF) Fibrated Aluminum Roof Coating, APOC #212 Fibrated Aluminum Roof Coating at an application rate of 1 ½ gal./sq.

Maximum Design Pressure: See Fastening Requirements above.

Membrane Type: SBS Modified

Deck Type 7I: Recover

Deck Description: Gypsum / Cementitious Wood Fiber / Lightweight Concrete

System Type E(4): Base sheet mechanically fastened.

All General and System Limitations apply.

Base Sheet: One ply of All Weather/Empire Base Sheet, GlasBase, Flexiglas Base, Flexiglas FR Base mechanically fastened to the deck as detailed below.

Fastening #1: Twin Loc-Nails spaced 7" o.c. in 4" side lap and two staggered rows in center of the sheet, 7" o.c.
(Maximum Design Pressure –67.5 psf, See General Limitation #9.)

Fastening #2: Twin Loc-Nails spaced 9" o.c. in 4" side lap and two staggered rows in center of the sheet, 9" o.c.
(Maximum Design Pressure –60 psf, See General Limitation #9.)

Ply Sheet: (Optional) One ply of All Weather/Empire Base Sheet, Glas Base, Flexiglas Base, Flexiglas FR Base, PolySMS or one or more plies of Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) adhered to the base sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or one ply of Black Diamond Base Sheet (for use with a torched cap sheet only) self-adhered.

Membrane: One ply of Flintlastic GMS, Flintlastic GMS CoolStar, Flintlastic Premium GMS, Flintlastic Premium GMS CoolStar, Flintlastic FR-P, Flintlastic FR-P CoolStar, Flintlastic Premium FR-P, Flintlastic Premium FR-P CoolStar, Flintlastic FR-PG, Flintlastic FR Cap or Flintlastic FR Cap CoolStar adhered to base or ply sheet with approved mopping asphalt applied within the EVT range and at a rate of 20 to 40 lbs./sq. or Flintlastic FR Cap T or Flintlastic FR Cap T CoolStar torch adhered to base or ply sheet.

Maximum Design Pressure: See Fastening Requirements above.

Membrane Type: SBS Modified

Deck Type 7: Recover

Deck Description: Min. 2,500 psi structural concrete or concrete plank.

System Type F(1): Base sheet heat welded to primed substrate

All General and System Limitations apply.

Note: Concrete deck shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of base sheet.

Base Sheet: One or more layers of Flintlastic FR Base T, torch applied

Ply Sheet: (Optional) Flintlastic FR Base T, torch applied.

Membrane: Flintlastic FR Cap T, Flintlastic FR Cap T CoolStar, torch applied.

Maximum Design Pressure: -542.5 psf (See General Limitation # 9)

RECOVER SYSTEM LIMITATIONS:

1 All System Limitations and General Limitations shall apply. See specific deck type Notice of Acceptance for deck type System Limitations.

GENERAL LIMITATIONS:

1. Fire classification is not part of this acceptance, refer to a current Approved Roofing Materials Directory for fire ratings of this product.
2. Insulation may be installed in multiple layers. The first layer shall be attached in compliance with Product Control Approval guidelines. All other layers shall be adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq., or mechanically attached using the fastening pattern of the top layer
3. All standard panel sizes are acceptable for mechanical attachment. When applied in approved asphalt, panel size shall be 4' x 4' maximum.
4. An overlay and/or recovery board insulation panel is required on all applications over closed cell foam insulations when the base sheet is fully mopped. If no recovery board is used the base sheet shall be applied using spot mopping with approved asphalt, 12" diameter circles, 24" o.c.; or strip mopped 8" ribbons in three rows, one at each side lap and one down the center of the sheet allowing a continuous area of ventilation. Encircling of the strips is not acceptable. A 6" break shall be placed every 12' in each ribbon to allow cross ventilation. Asphalt application of either system shall be at a minimum rate of 12 lbs./sq.
   Note: Spot attached systems shall be limited to a maximum design pressure of -45 psf.
5. Fastener spacing for insulation attachment is based on a Minimum Characteristic Force (F') value of 275 lbf., as tested in compliance with Testing Application Standard TAS 105. If the fastener value, as field-tested, are below 275 lbf. insulation attachment shall not be acceptable.
6. Fastener spacing for mechanical attachment of anchor/base sheet or membrane attachment is based on a minimum fastener resistance value in conjunction with the maximum design value listed within a specific system. Should the fastener resistance be less than that required, as determined by the Building Official, a revised fastener spacing, prepared, signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant may be submitted. Said revised fastener spacing shall utilize the withdrawal resistance value taken from Testing Application Standards TAS 105 and calculations in compliance with Roofing Application Standard RAS 117.
7. Perimeter and corner areas shall comply with the enhanced uplift pressure requirements of these areas. Fastener densities shall be increased for both insulation and base sheet as calculated in compliance with Roofing Application Standard RAS 117. Calculations prepared, signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant **(When this limitation is specifically referred within this NOA, General Limitation #9 will not be applicable.)**
8. All attachment and sizing of perimeter nailers, metal profile, and/or flashing termination designs shall conform to Roofing Application Standard RAS 111 and applicable wind load requirements.
9. The maximum designed pressure limitation listed shall be applicable to all roof pressure zones (i.e. field, perimeters, and corners). Neither rational analysis, nor extrapolation shall be permitted for enhanced fastening at enhanced pressure zones (i.e. perimeters, extended corners and corners). **(When this limitation is specifically referred within this NOA, General Limitation #7 will not be applicable.)**
10. All products listed herein shall have a quality assurance audit in accordance with the Florida Building Code and Rule 61G20-3 of the Florida Administrative Code.

END OF THIS ACCEPTANCE